

Appl. No. 09/778,371
Amdt. Dated Oct. 16, 2003
Reply to Office Action of July 16, 2003

REMARKS

Claims 1-7 and 9-20 are pending in the present application. Claims 1, 3-5, 7, 9-10, and 12-18 stand rejected. Claim 4 has been amended for clarity. Support for this amendment is found at page 8, lines 22-24. Claim 5 has been amended to substitute "article" for "garment body". Support for this amendment is found at page 17, as previously amended, under the heading "Exemplary Triggering Mechanisms." Despite these amendments, no new matter has been added. Entry of these amendments is believed to be in order and is respectfully submitted.

INVENTION SYNOPSIS

The present invention is directed to an absorbent article comprising a backsheet; a liquid pervious topsheet joined to the backsheet; an absorbent core disposed intermediate to the topsheet and the backsheet; and a thermal cell actuator which adds or removes heat from at least a portion of the absorbent article upon actuation so as to result in a useful function such as maintaining the article at a predefined temperature, maintaining relative humidity in a volume between a wearer and the article when the article is worn, melting a material disposed on the article, changing a mechanical property of a different component of the article, changing the breathability of a component of the article, and changing the vapor pressure of a material disposed on the article.

REJECTIONS UNDER 35 U.S.C. § 112, SECOND PARAGRAPH

The Office Action states that Claims 4-5 are rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Office states that it is unclear what the applicant intends to claim as an invention or encompass within the term.

In order to expedite prosecution, Applicants have amended Claims 4 and 5 to provide further clarity. Claim 4 is amended to substitute "wherein the thermal cell actuator performs the function at location . . ." for "wherein the thermal cell actuator the function is performed at location . . ." Applicants have also amended Claim 5 to substitute "article" for "garment body."

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Applicants submit that Claims 4 and 5 as amended are definite and, therefore, respectfully request withdrawal of the rejection under 35 U.S.C. § 112, second paragraph as well as reconsideration of the claims.

REJECTIONS UNDER 35 U.S.C. § 102

Claims 1, 3-4, 7, and 17-18 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,431,622 to Pyrozyk et al. (hereafter "Pyrozyk"). With respect to Claims 1 and 3, the Office states that Pyrozyk discloses:

an absorbent article comprising a backsheet (54), a liquid pervious topsheet (52) joined to the backsheet (figure 1), an absorbent core (46) disposed intermediate the topsheet and the backsheet (col. 3, lines 8 - 26) and a thermal cell actuator (144) which adds or removes heat from at least a portion of the absorbent article upon actuation so as to result in a useful function of maintaining the article at a predefined temperature.

Applicants traverse this rejection.

Applicants submit that Claims 1 and 3 are not anticipated by Pyrozyk because at least two of Applicants' limitations are neither taught nor disclosed in Pyrozyk. First, Pyrozyk discloses a thermal bandage apparatus for simultaneously dressing and thermally treating a wounded bodily area. As to the bandage, Pyrozyk discloses a moisture barrier (54), a wound contacting surface (52), a fluid absorbent member (46), and a water heater (144). Pyrozyk states that the "fluid absorbent member 46 [has] a wound facing side 48. The wound facing side has a wound contacting surface 52 thereon." *See*, Col. 3, lines 10-12. Pyrozyk, however, fails to teach each and every element as set forth in Applicants' claim. Applicants' claim "a liquid pervious topsheet joined to the backsheet." Pyrozyk does not teach a topsheet joined to the backsheet. Pyrozyk only discloses a "fluid absorbent material having a wound facing side . . . [having] a wound contacting surface thereon." There is no teaching or suggestion of the wound contacting surface, which the Office asserts is a topsheet, being *joined* to the moisture barrier, which the Office asserts is a backsheet. "Anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim." *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983). Pyrozyk fails to teach all of the elements of Applicants' claimed invention.

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Second, the Office states that Pyrozyk discloses a "thermal cell actuator which adds or removes heat from at least a portion of the absorbent article upon actuation so as to result in a useful function of maintaining the article at a predefined temperature." Pyrozyk, however, actually discloses the following:

Inside the reservoir 132, there is located a water heater 144 controlled by a thermostat 146. The thermostat allows a pre-determined water temperature to be selected and controls electric power to the water heater to heat water in the reservoir to the pre-determined water temperature and maintain the water at that temperature.

See, Col. 5, lines 4-10. Nothing within Pyrozyk discusses maintaining the article at a predefined temperature; Pyrozyk only speaks of keeping a reservoir of water at a pre-determined temperature. As a result, Pyrozyk fails to teach or disclose Applicants' claim limitation of "maintaining the article at a predefined temperature." In light of the arguments presented above, Applicants respectfully request reconsideration and withdrawal of the rejection.

With respect to Claim 4, the Office states that Pyrozyk discloses "an absorbent article wherein the thermal cell actuator function is performed at a location between the backsheet of the article and the skin of the wearer in response to a change in temperature." With respect to Claim 7, the Office states that "Pyrozyk discloses an absorbent article wherein the thermal cell actuator controls temperature in the article." Claims 4 and 7 are dependent upon and contain all the limitations of Claim 1. Applicants respectfully submit, based upon the discussion presented above, that Pyrozyk fails to anticipate Applicants' claim limitation of a liquid pervious topsheet joined to the backsheet. As a result, Pyrozyk fails to teach or suggest all of the elements of Applicants' Claims 4 and 7. Applicants respectfully request reconsideration and withdrawal of the rejection relative to Claims 4 and 7.

With respect to Claim 17, the Office states that Pyrozyk discloses "an article wherein the thermal cell actuator changes a mechanical property of a component of the article other than thermal cell actuator." The Office contends that addition of heat by the thermal cell actuator to at least the moisture barrier would cause the material to become more pliable thereby changing a mechanical property of the barrier layer. As stated previously, anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim. Pyrozyk provides no teaching or suggestion of increased pliability of the moisture barrier. The

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Office's contention of increased pliability is an argument unsupported by teaching or disclosure in Pyrozyk. Applicants respectfully request reconsideration and withdrawal of the rejection.

With respect to claim 18, the Office states that Pyrozyk discloses the component as a cuff opening in figure 1. The Office contends that the edge of the barrier layer that leads to the top of the article may be considered a cuff opening. Applicants submit that the cuff of the present application is designed, in part, to isolate fecal waste. *See*, page 1, line 30 to page 2, line 1. Pyrozyk does not disclose a cuff, and, furthermore, Pyrozyk clearly does not disclose or suggest a cuff for fecal waste isolation. The Office's contention that the edge of the barrier layer may be considered a cuff is argument unsupported by teaching or disclosure in Pyrozyk. Applicants respectfully request reconsideration and withdrawal of the rejection.

Claims 1, 4, 7, and 17-18 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,797,892 to Glaug et al. (hereafter "Glaug"). With respect to Claims 1, the Office states that Glaug discloses:

[A]n absorbent article comprising a backsheet (58), a liquid pervious topsheet (60) joined to the backsheet (col. 5, lines 34 - 38), an absorbent core (82) disposed intermediate the topsheet and the backsheet (figure 6) and a thermal cell actuator (54) which adds or removes heat from at least a portion of the absorbent article upon actuation so as to result . . . in maintaining the article at a predefined temperature (i.e., a change from about 2.8° - 13.8° C) as set forth in col. 9, lines 3 - 5.

Applicants traverse this rejection.

Glaug discloses a toilet training aid in the form of a pad including a temperature change member comprising a temperature change substance that provides a possible total energy change of from about 6 to about 30 cal/cm². *See*, col. 2, lines 3-8. Glaug further states that the training aid "desirably provides a surface temperature change when wet from about 5 to about 25 degrees Fahrenheit." *See*, col. 9, lines 3-5. Finally, Glaug discloses that "the cool or warm sensation produced by the temperature change member should last from about 1 to about 120 seconds, and particularly from about 10 to about 60 seconds, such as about 30 seconds." *See*, col. 14, lines 13-16.

Applicants submit that Claim 1 is not anticipated by Glaug because Glaug fails to teach or disclose all of Applicants' claimed limitations. The Office states that the temperature change

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member of Glaug results in Applicants' useful claimed function of "maintaining the article at a predefined temperature." Glaug fails to teach or disclose this limitation. Glaug, instead, teaches that a "cool or warm sensation . . . should last from about 1 to about 120 seconds." Glaug, however, fails to teach or suggest that a "cool or warm sensation" is a predefined temperature. As a result, Glaug's "cool or warm sensation" lasting from about 1 to about 120 seconds does not anticipate Applicants' claim limitation of maintaining a predefined temperature. Applicants respectfully request reconsideration and withdrawal of the rejection.

Regarding Claim 4, the Office states that Glaug discloses an absorbent article wherein the thermal cell actuator performs a function between the backsheet of the article and the skin of the wearer in response to a change in relative humidity, moisture, or temperature. With regard to Claim 7, the Office Glaug discloses an absorbent article wherein the thermal cell actuator controls humidity or temperature in the article. With regard to Claims 9 and 10, the Office directs the Applicants to "see col. 9, lines 45-52." With regard to Claim 13, the Office states that Glaug discloses an article wherein the thermal cell actuator is not in contact with the wearer's skin when the article is worn. Since independent Claim 1 is not anticipated in light of the reasoning above, Claims 4, 7, 9, 10, and 13 depending therefrom are also not anticipated. Applicants respectfully request reconsideration and withdrawal of the rejection.

With respect to Claim 14, the Office states that "Glaug discloses an article wherein the thermal cell actuator is in vapor communication with the wearer's skin such that vapor can condensate inside the article as set forth in col. 16, lines 42-48." Glaug, in column 16, lines 42-48 states:

The temperature change member 54 is desirably positioned within the pad 80 so as to be closer to the wearer's skin than the expandable member 82. The temperature change member 54 is desirably positioned between the wet sensation layer 56 and the expandable member 82 so that heat is easily conducted between the wearer's skin and the temperature change substance 64.

As the previous quote illustrates, Glaug provides no disclosure or teaching of Applicants' claim limitation of the thermal cell actuator being in "vapor communication with the wearer's skin such that vapor can condensate inside the article." As a result, Glaug fails to teach or suggest each and every element as set forth in Applicants' Claim 14. Furthermore, since independent

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Claim 1 is not anticipated in light of the reasoning above, Claim 14 depending therefrom is also not anticipated. Applicants respectfully request reconsideration and withdrawal of the rejection.

REJECTIONS UNDER 35 USC § 103(a)

Claims 12-13 and 15-16 stand rejected under 35 USC § 103(a) as being unpatentable over Pyrozyk. In support of the rejection to Claim 12, the Office states that Pyrozyk discloses an absorbent article including a thermal cell actuator that maintains the article at a predefined temperature. The Office concludes that it would have been obvious to one of ordinary skill in the art to modify the temperature at which the article is maintained. As to Claim 13, the Office states that Pyrozyk discloses a thermal cell actuator that is not in contact with the wearer's skin when the article is worn. As to Claim 15, the Office states that Pyrozyk discloses a thermal cell actuator that is triggered by a user during application of the article. Finally, as to Claim 16, the Office states that Pyrozyk discloses the use of a thermal cell actuator to maintain the water at a certain temperature. The Office contends that the device of Pyrozyk is fully capable of maintaining a constant temperature for a least 1 hour. Applicants traverse these rejections.

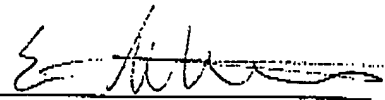
Applicants respectfully submit that the Office has failed to make a prima facie case for obviousness relative to claims 12, 13, 15, and 16. Pyrozyk fails to teach or suggest all of the limitations within claims 12, 13, 15, and 16. To establish a prima facie case of obviousness, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981 (CCPA 1974). As presented in the above reply to the §102 rejection, Pyrozyk does not teach or suggest a topsheet joined to the backsheet. Pyrozyk merely discloses a "fluid absorbent material having a wounds facing side . . . [having] a wound contacting surface thereon." There is no teaching or suggestion of the wound contacting surface, which the Office asserts is a topsheet, as being joined to the moisture barrier, which the Office asserts is a backsheet. Furthermore, Pyrozyk fails to teach or suggest Applicants' claim limitation of "maintaining the article at a predefined temperature." Pyrozyk only speaks of keeping a reservoir of water at a predetermined temperature. Since independent Claim 1 is nonobvious in light of the reasoning above, Claims 12, 13, 15, and 16 depending therefrom are also nonobvious. *In re Fine*, 837 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Applicants respectfully request reconsideration and withdrawal of the rejection.

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CONCLUSION

Based on the foregoing reasons, Applicants respectfully submit that the Office has failed to make the case for the §102 and §103 rejections, and, therefore, the rejections are improper. Reconsideration and withdrawal of the rejections are respectfully requested. Applicants respectfully request allowance of each of the pending claims in the next Office Action.

Respectfully Submitted,
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